

Alberta Aerospace Directory



Minister's Message

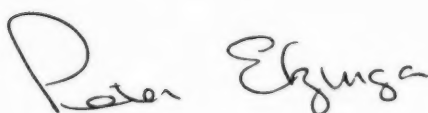
The Alberta Government applauds the province's aerospace industry for its rapid growth. The aerospace industry, which is playing an increasing role in the Canadian economy, is also an important element of Alberta's economic diversification.

This directory lists more than 60 firms which serve a variety of sectors, and includes highly-specialized companies and long-established corporations. All contribute to the expansion of Alberta's economic base, generate new sources of income and create new job opportunities for Albertans.

Alberta aerospace companies are becoming involved in the world's aerospace industry. Exports are increasing and Alberta products are being utilized in destinations as diverse as the United States, Saudi Arabia, and Pacific Rim countries.

I salute the innovation and commitment of these Alberta companies, and encourage the world's aerospace leaders to look to them to provide the products and services they require.

The Alberta Government will continue to support the province's important aerospace industry.



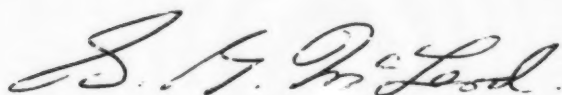
Peter Elzinga, *Minister*
Economic Development and Trade

President's Message

On behalf of the Alberta Aerospace Association, I am pleased to comment on the rapid and exciting development of our industry in Alberta.

This document includes a listing of many aerospace related companies which have wide and varied capability in the manufacturing, research and development, and service industries. Many are involved in joint ventures worldwide.

The Association applauds and appreciates the initiatives and continuing support of the Government of Alberta, as our industry develops and matures.

A handwritten signature in cursive script, reading "S.G. McLeod".

S.G. McLeod, *President*
Alberta Aerospace Association

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Hiltap Fittings Ltd.
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Mining Resource and Engineering Ltd.
Northwest Industries Ltd.

Airborne Precision

#110, 5621 - 11 Street NE
Calgary, Alberta
T2E 6Z7
(403) 275-4211

Contact

Neil M. Birch, President - Instruments
Jack F. McTavish, President - Avionics

Description

Airborne Precision is a specialist in the repair and installation of autopilot, radar and radar altimeter systems. It also performs test equipment maintenance and calibration, as well as repair and service of instruments.

Quality Standard

MOT; a certified avionics and instrument repair station.

Major Clients

Time Air; Calm Air; Northwest Territorial Airways; Esso; Chevron; Pan Canadian; Shell; Field Aviation; Intera Technologies; Liftair International; Province of Manitoba; Province of Saskatchewan; PetroCanada.

Sales

\$1 million

Employees

15

Alberta Aircraft Overhaul (1987) Ltd.

#26, 1190 McTavish Road NE
Calgary, Alberta
T2E 7G6
(403) 291-3030

Contact

Mike Webber, CEO
Terri Thomas, Sales
Dale Jacobs, Marketing Representative

Description

Alberta Aircraft Overhaul performs airframe overhauls and modifications to all types of fixed wing aircraft and helicopters. A joint venture project is underway with Bick Aviation Products to manufacture DHC 6 Airstair doors.

Quality Standard

Transport Canada approved maintenance organization.

Featured Equipment

Bell Approved Helicopter Jigs; Complete Sheet Metal and Machine Shop.

Major Clients

Canadian Airlines International; H.W.T. Air; Eagle Copters.

Employees

27

Alberta Laser Institute

9924 - 45 Avenue
Edmonton, Alberta
T6E 5J1
(403) 436-9750 TELEFAX: (403) 437-1240

Contact

Dr. Don McKen, President
Mr. Al Pierce, Marketing Representative

Description

The Alberta Laser Institute offers custom laser machining & processing of materials including metals, plastics & ceramics featuring services such as precision welding, surface protection via weld over laying & case hardening. On-going research activity involves new welding & hardening applications, surface protection & quality control apparatus.

Featured Equipment

CE-5000 Laser & work station; CE-1000 Laser & work station; Zimmer proximeter probe for inspection; state of the art vision system for component inspection.

Major Clients

NRC Space Division; Defence Research.
Establishment; various oil patch companies.

Sales

\$88,000 (1988)

Employees

14

Alberta Microelectronic Centre

3553 - 31 Street, N.W., Suite 200
Calgary, Alberta
T2L 2K7
(403) 289-2043 TELEFAX: (403) 289-2047

Contact

Mr. John Zupancic, CEO
Mr. Tom Lambourne, Marketing Representative

Description

The Alberta Microelectronic Centre performs semi-custom I.C. design & fabrication, analog & digital electronics design, programmable logic design, and electronic feasibility studies

Featured Equipment

CAD systems running technology independent software for schematic capture, simulation, layout placement & routing.

Major Clients

Department of Communications; Keyword Office
Technologies Ltd.; Alberta's Electronic Industry.

Employees

25

Alberta Research Council

250 Karl Clark Road
P.O. Box 8330, Postal Station F
Edmonton, Alberta
T6H 5X2
(403) 450-5111

Contact

Dr. C. W. (Clem) Bowman, CEO
Mrs. D. M. Hollands, Marketing Representative

Description

In the area of aerospace, the Alberta Research Council develops software, conducts applied research and performs consulting in artificial intelligence, robotics, automation and testing. Research is also conducted in vision systems and distributed computing. Current joint venture activity in the areas of automation and space.

Featured Equipment

Symbolics at work stations; ADEPT robot; Puma 762 robot.

Major Clients

Canadian Space Program; various government departments and private sector companies.

Employees

600

Amptech Corporation

1351 Hastings Crescent SE
Calgary, Alberta
T2G 4C8
(403) 221-0550 TELEFAX: (403) 243-2414
TELEX: 038-22094

Contact

Ehor Babij, President
Malcolm Smith, Marketing Representative

Description

Amptech Corporation performs aluminum and zinc die casting. It has expertise in injection molding of specialty thermoplastics for the aerospace industry. Amptech also has facilities for CAD/CAM tooling, design and engineering.

Quality Standard

Conforms to AQAP 4

Featured Equipment

MacDonnell Douglas CAD; CNC Injection Molding Equipment; Mitutoyo R-231 Co-ordinate Measuring Machine.

Major Clients

Northern Telecom; General Defense Corporation; Valentec Olivette; Bristol Aerospace; Novatel Communication; Chamberlain Manufacturing.

Exports

USA; Korea; Hong Kong

Sales

\$6.5 million

Employees

130

AMTEK Testware Ltd.

5104 - 82 Ave.
Edmonton, Alberta. T6B 0E6
(403) 466-6953 TELEFAX: (403) 469-1397

Contact

Laurie E. McClare, President & General Manager
Mitchell J. Poirier, Marketing Manager

Description

AMTEK Testware Limited., (ATL) is a member of the Canadian owned AMTEK Group and offers professional services in MIL STD software design development with support for military Automatic Test Equipment (ATE), an area of special expertise. Operational integrated systems incorporating distributed processing systems, management information systems, inventory management database development and associated documentation are also company product lines.

ATL's experience in major capital defence projects include the New Shipborne Aircraft, the CP-140 Aurora Long Range Patrol Aircraft, the CF-18 Fighter Aircraft, and the Canadian Patrol Frigate. The company provides Engineering Support for the CF-18 AN/APG-65 Radar Test System for the Department of National Defence.

Support Services include requirement studies, specification development, integration and testing. Integrated Logistic Support services at ATL includes logistics support analysis, life cycle costing, optimum repair level analysis, training and the development and production of technical publications.

Quality Standards

Conforms to AQAP 13.

Featured Equipment

Apricot (IBM) network; Sun Microsystems; MacIntosh IIx; Hewlett Packard systems; autoCAD and drafting facilities.

Major Clients

Department of National Defence; Department of Transport; Government agencies; Bristol Aerospace Ltd.; Canadian Marconi Company; European Helicopter Inc.; Paramax Electronics.

Exports

U.S.A.

Sales \$2.3 million

Employees 44

Argus Machine Co. Ltd.

5820 - 97th Street
Edmonton, Alberta
T6E 3I1
(403) 434-9451 TELEFAX: (403) 438-1502

Contact

Tom Hallett, CEO
Bob Moore, Marketing Representative

Description

Argus Machine has 30 years experience in providing design, drafting and precision machining services. Argus Machine offers CAD/CAM capability and a temperature controlled gauge & calibration room.

Quality Standards

Conforms to AQAP4; CSA Z299.3

Featured Equipment

9 CNC Lathes to 44" Swing & 130" c/c; VDF Precision Deep Hole Drill to 15' Depth; O.D./I.D. Cylindrical Grinder; 3 Axis CNC Mill; MIG/TIG & Pressure Welding.

Major Clients

Otis Engineering Co. Ltd.; Baker Oil Tools Canada; Shell; Gulf; Mobil; Esso.

Exports

India; Pakistan; Hungary

Employees

40

Aurora Laser Inc.

10328 - 133 St.
Edmonton, Alberta
T5N 1Z9
(403) 451-0710 TELEFAX: (403) 482-7481

Contact

Jack Ondrack, President

Description

Aurora Laser is involved in laser research for military & surgical applications and in laser repair and maintenance. Recent development patent of a CO₂ slab laser which is radically smaller and more rugged than existing types will have diverse medical and military applications. Aurora Laser is contracted to the Defence Research Establishment Valcartier to build a Q-switched wave guide CO₂ laser prototype and conduct modelling of laser behaviour.

Major Clients

DND; DREV.

Employees

5

Austec Electronic Systems Ltd

17310 - 107 Avenue
Edmonton, Alberta
T5S 1E9
(403) 486-0511 TELEFAX: (403) 489-3697

Contact

Keith Brockelsby, President

Description

Austec Electronic Systems is involved in consulting, design & development of electronic systems for automatic identification in the transport industry. Austec Electronic Systems has a wide range of capabilities in-house from digital data processors to microwave R.F. including software. Experience includes design & use of thick film techniques. On-going research activity involves a radar-based ship identification system. Current joint venture projects are an automatic road vehicle identification system (with VAPOR CANADA) & automatic train control equipment (also with VAPOR CANADA).

Quality Standards

In-house Quality Assurance Program

Featured Equipment

PCB design CAD system; R.F. test equipment up to 20G Hz; thermal chamber.

Major Clients

VAPOR CANADA: Department of Fisheries & Oceans.

Sales

\$800,000

Employees

10

Bate Systems Inc.

10519 - 115 St.
Edmonton, Alberta
T5H 3K5
(403) 426-7812 1-800-661-6961

Contact

Catherine E. Bate, Business Development Manager

Description

Bate Systems sponsors public seminars and organizes in-house courses for companies and government agencies in the defence, aerospace, space and communications sectors. Subjects including Program and Project Management, Systems Engineering, Software Engineering, Avionics and Defence Systems, Communications Systems, Automatic Test Equipment, Expert Systems, and Electromagnetic Interference and Compatibility are intended primarily for engineers and scientists, engineering managers, business development specialists, and contracts specialists. Eighty-five percent of Bate Systems' business is in the Aerospace/Defence industry.

Major Clients

Department of National Defence; Transport Canada; Supply and Services Canada; Canadian Marconi Company; Computing Devices Company; Oerlikon Aerospace Inc.

Sales

\$200,000

Employees

3

Bronson Machine Ltd.

5827-50 Ave
Bonnyville, Alberta
T9H 2L3
(403) 826-4395 TELEFAX: (403) 826-2244

Contact

Ron Belanger, President
Hille Newton, Quality Assurance Manager
Mirek Janovec, Manager
D.S. Jakul, Marketing Representative

Description

Bronson Machine Ltd. has facilities for precision machining, remanufacture, fabrication & repair of all types of metals, as well as welding capabilities. Ongoing research & development programs related to custom manufacturing & machining.

Quality Standard

CSA Can 3-Z.299.3.85, API; 5A, 5AC, 5AX ANSI; B16.5, B16.9, B16.11, B16.25 ANSI/ASME; B31.1, B31.3 ASME; Sec. I, Sec. VIII Alberta Boiler Br. Authorization #46.

Featured Equipment

Lodge & Shipley 30" Hollow Spindle Lathe; Heidenreich & Harbeck 20" Engine Lathe; 3-Summit 20" Engine Lathe; TOS Milling Machine; Hydramach 5 ton overhead crane; Frontier 7 ton overhead crane.

Major Clients

ESSO Resources Canada Ltd.; BP Resources Canada Ltd.; Suncor Inc.; Northeastern Drilling Ltd.; Citation Well Services Ltd.; AEC Pipeline Ltd.; AMOCO Canada Petroleum Ltd.; Maple Leaf Utilities Ltd.; Mobil Oil Canada Ltd.

Employees

16

Calgary Controls Ltd.

7056 H Farrell Road SE
Calgary, Alberta
T2H 0T2
(403) 253-6101 TELEFAX: (403) 259-2078

Contact

Walter H. Lindenback, President

Description

Calgary Controls is involved in the design and manufacture of custom telecommunications equipment for its customers. Products include remote telephones, speaker phones, radio adapters, sequential recorders, solid state voice alarms, alarm display units and a remote addressable loopback unit.

Featured Equipment

CAD design facility.

Major Clients

AMOCO; ESSO; Gulf; Bow River Pipeline; Peace Pipeline; Canadian National; Canadian Pacific; Alberta Government Telephone; Manitoba Tel; New Brunswick Tel; Bell Canada; Sask Tel; Alberta Power; City of Calgary Electric; Northwest Utilities; Trans Alta Utilities.

Sales

\$1.5 million

Employees

15

Canadian Foremost Ltd.

1616 Meridian Road NE
Calgary, Alberta
T2A 2P1
(403) 272-3322 TELEFAX: (403) 273-8084

Contact

Claude LaPietra, Technical Sales Manager
Don Stewart, Director, Sales and Marketing

Description

Canadian Foremost is a world-wide known manufacturer of high mobility off road tracked and wheeled vehicles, mineral exploration drilling equipment & hydraulic oilfield pumping units, with ongoing development & improvement of products and services including custom design for new applications. Current joint venture projects are:

- "Foremost Progress": Through a joint venture with the USSR, a marketing & sales company has been formed to co-produce specialized products.
- "Hagglunds/Foremost": A company established to develop, manufacture & market the Northern Terrain Vehicle for DND.

Quality Standards

Conforms to AQAP 9

Featured Equipment

CAD system; welding & paint shop; sand blasting; heavy lifting equipment; assembly line.

Major Clients

Canadian Foremost clients include the oil & gas, utility and the general construction industries, as well as provincial & federal governments.

Exports

Eighty per cent of Sales are exported to areas such as USSR, China, South America, Middle East, Arctic, Antarctica and the USA.

Sales

\$20 - 25 million

Employees

200

Canadian Quality Aircraft Interiors Ltd.

783 MacTavish Road NE
Calgary, Alberta
T2E 7G8
(403) 250-5574 TELEFAX: (403) 291-3686

Contact

Denis LeBlanc - CEO
Ivan Moar - Marketing Representative

Description

Canadian Quality Aircraft Interiors has extensive experience in the area of aircraft interior refurbishment and cover manufacturing.

Featured Equipment

Heavy and light duty sewing machines, fabrics and foam cutters, and a heavy duty carpet serger.

Major Clients

Time Airline; Rocky Mountain Aircraft; Eagle Copters; Nahanni Helicopters; Peariso Aviation

Exports

USA; England

Sales

\$500,000

Employees

10

Canspec Testing Services Inc.

480C - 36th Avenue SE
Calgary, Alberta
T2G 1W4
(403) 287-2783 TELEFAX: (403) 287-1559

Contact:

K.A. Stankievech, CEO
A.M. Gilroy-Scott, Marketing Representative

Description

Canspec Testing Services provides NDT Inspection Services, Quality Management, Materials & Welding Engineering Services, Visual & Welding Inspection & Acoustic Emission testing. Canspec also performs API audit surveys.

Quality Standard

Conforms to CSA Z299.2

Featured Equipment

Non Destructive Inspection (Radiograph, Ultrasonics, Acoustic Emissions).

Major Clients

NOVA Corporation of Alberta; Westcoast Energy; ESSO; Canadian Airlines Int.

Exports

USA; Mexico; Australia; Asia; Africa

Sales

\$5 million

Employees

120

Canutel Industries Ltd.

P.O. Box 610,
College Heights, Alberta
T0C 0Z0
(403) 782-4838 TELEFAX: (403) 782-4949

Contact

Hugo Wegmuller, President
J.P. Wegmuller, Vice President
Jerald Horniachek, Engineering Sales Manager

Description

Canutel Industries performs electronic contract assembly specializing in insertion, assembly & testing of printed circuit boards, & assembly & testing of complete electronic equipment to print. In addition, surface mount technology assembly is available. Heat chamber burn-in, conformal coating, cable assembly & mechanical assembly are also performed in Canutel's facilities. Installation of an automated surface mount technology assembly line is expected by the fall of 1989.

Quality Standard

Conforms to MIL-I-45208A, AQAP 4, & Transport Canada DTA 1000.

Featured Equipment

Two semi-automatic lead forming machines; Electrovert 10" wave soldering machine; Detrex Vapor degreaser; Standard test instruments; Production and testing process is backed by computerized systems developed in-house.

Major Clients

Various companies and government agencies in telecommunications, industrial, security and computer fields such as Alberta Government Telephones, Transport Canada, Myrias, Westronics, Lakewood Systems, Novatel and Edmonton Telephones.

Employees

50

CSI Communication Systems Inc.

P.O. Box 1769
Morinville, Alberta
T0G 1P0
(403) 939-7560 TELEFAX: (403) 939-6163
TELEX: 037-42509

Contact

Bob Haagensen, President
W.R. Wilson, Business Development

Description

CSI Communication Systems designs and manufactures high frequency radio data and voice communication systems. It designs and manufactures Vessel Surveillance Systems for automatic tracking of vessels at sea and Point-to-Point Communication Systems to 2500 km for data and voice. On going development of "Agile HF" radio systems.

Major Clients

Federal Emergency Management Agency (USA); U.S. Coast Guard; Ministry of Foreign Affairs (PRC); Forum of Fisheries (New Guinea).

Exports

U.S.A.; Peoples Republic of China (PRC).

Sales

\$1.7 million

Employees

8

D & S Knowledge Systems Inc.

700, 125 - 9th Avenue S.E.
Calgary, Alberta
T2G 0P6
(403) 268-6500 TELEFAX: (403) 269-7265

Contact

M.S. Abougoush, CEO
Gerald R. Parks, Business Development Manager

Description

D & S Knowledge Systems is involved in expert system application development & artificial intelligence studies. Development is underway of a log analysis software with an expert system module. On-going research activities involve Neural Networks and a PC based Expert System Shell.

Featured Equipment

PC 286/386-PS/2; HP 3XX

Major Clients

Petro-Canada; Alberta Research Council; Mobil Houston; Texaco.

Exports

Pakistan; U.S.A.

Employees

8

Datek Industries Ltd.

8522 Davies Road
Edmonton, Alberta
T6E 4Y5
(403) 465-1530 TELEFAX: (403) 465-0130
TELEX: 037-42726

Contact

Mr. Alex Frei, Sales Engineer

Description

Datek Industries manufactures Supervisory Control and Data Acquisition (SCADA) systems, telemetry and printed circuit boards. Capabilities include electronic design and manufacture of software and hardware.

Quality Standard

Conforms to CSA Z299.3

Featured Equipment

Model 8000 - a general purpose industrial micro-computer to be used for SCADA master stations, data logger, SCADA RTU's, Stand-Alone Controller. Vista SCADA software package, hand held Terminal/Data Entry Unit.

Major Clients

Alberta Government Telephones; Canadian Superior Oil; Chevron Canada; City of Edmonton; Coseka Resources; Department of National Defence/ Department of Supply and Services; Dresser Industries; Edmonton Power; Esso Petroleum; Gulf Canada; ICG Resources; NOVA, an Alberta Corporation; Syncrude; Trans Mountain Pipeline; Mobil Oil Canada.

Employees

45

Ducey Avionics Ltd.

Hanger No. 2, Edmonton Municipal Airport,
Edmonton, Alberta
T5G 2Z3
(403) 474-5427 TELEFAX: (403) 474-6340

Contact

W.R. Ducey, CEO
James Murray, General Manager

Description

Ducey Avionics is experienced in the supply, repair, overhaul & installation of a wide range of aircraft navigation, communication, radar & electronic flight control equipment. It is also an approved dealer for most major avionics equipment manufacturers.

Quality Standard

Canadian Ministry of Transport avionics shop approval, M.O.T. "E" licenced personnel.

Major Clients

Most regional airlines and charter operators in the Western Provinces and the Western Arctic; numerous private and executive aircraft owners; the petroleum industry; Alberta Government Transportation and Forestry Departments.

Employees

10

EDO Canada Ltd.

1940 Centre Avenue N E
Calgary, Alberta.
T2E OA7
(403) 569-5400 TELEFAX: (403) 569-5499

Contact

J. Douglas Moore, CEO and President
Fraser B. Rea, Director Business Development

Description

In less than a decade, EDO Canada Ltd has grown from a specialized producer of survey, satellite positioning and integrated navigation equipment to a multi-divisional company servicing a broad range of electronic and aerospace requirements. While the Defence Electronics Division is the cornerstone of EDO Canada Ltd., the newly formed Advanced Composites and Structural Ceramics Divisions have already identified niches for themselves in the space, aerospace, and commercial industries.

The Advanced Composites Division utilizes various fibres in conjunction with a variety of non-metallic matrix materials to produce rugged and lightweight products for space, aerospace and commercial industries. This Division was recently awarded a contract to manufacture 480 Gallon Fuel Tanks for the CF-18 Fighter Aircraft. The fuel tank project establishes an in-house manufacturing base for future projects in commercial and military aircraft, aerospace and space applications.

The Structural Ceramics Division utilizes injection molding technology to fabricate complex ceramic shapes that can be used as alternatives to a broad range of components traditionally manufactured from materials such as metal alloys.

This Division not only offers products with the improved properties of advanced ceramic materials, such as strength retention at elevated temperatures, high melting points and extreme hardness, but through injection molding processes, the capability to produce final net shape components.

The Defence Electronics Division has a solid and successful background in positioning and navigation technology. Initially concerned with developing and manufacturing survey instrumentation utilizing the NNSS Navy Navigational Satellite System, the Division moved to the forefront of the industry in 1985 by introducing SatTrak, a fully portable receiver, capable of accurately positioning both stationary and moving objects using the Global Positioning Satellite System (GPS).

On March 6, 1989 EDO Canada Ltd was awarded the DSS/DND contract to develop an integrated navigation system for arctic defence land vehicles.

Quality Standard

Approval to AQAP 1 (pending).

Featured Equipment

Advanced Composites Division: 2 computer controlled filament winding machines; computer controlled ovens and large diameter autoclave. Structural Ceramics Division: injection molding.

Major Clients

Canadian Armed Forces; Canadian Navy; Canadian Airforce; Volk Precision; Amtek Testware; SPAR.

Exports

Brazil; India; Algeria; Japan; Singapore; Korea; Germany.

Sales

\$3.5 million.

Employees

45 - 50.

Electronics Test Centre

250 Karl Clark Road
P.O. Box 8330, Station 'F'
Edmonton, Alberta
T6H 5X2
(403) 450-5370 TELEFAX: (403) 462-7285

Contact

Brian Young, General Manager
Chris Talliss, Marketing Representative

Description

The Electronics Test Centre provides a "one-stop" testing & engineering service accredited & recognized by a wide range of regulatory & certification agencies. Testing services include the following:

- performance analysis on telecommunication products.
- climatic & dynamic testing.
- electronic systems & components.
- EM interference.
- quantifying parameters such as failure rates & modes, yield prediction, life cycle costing, & logistic & maintenance support using computer modelling.

The Centre also offers a Documentation Centre which provides up-to-date standards, specification documents, band books, guides & directories, to the customer.

Quality Standard

Documentation Systems conform to AQAP1.
Calibration systems conform to AQAP6.

Featured Equipment

AGREE Chamber; Vibration/Shock System; 3, 10 & 30 metre open field test site; radio frequency anechoic chamber, 5m x 8m x 5m; automated terminal attachment test system; temperature/humidity chambers (An altitude chamber is on order).

Major Clients

NovAtel Communications Ltd; SED Systems Inc.; UNISYS; Northern Telecom; MacDonald Detwiller; provincial & federal agencies; EDO Canada Ltd; Volk Precision Industries.

Sales

\$500,000

Employees

17

Evans Consoles Inc.

2080 - 21 Street NE
Calgary, Alberta
T2E 6S5
(403) 291-4444 TELEFAX: (403) 250-6549

Contact

Ross Evans, President
Michael H. Crombie, Marketing Manager

Description

Evans Consoles designs & manufactures modular console enclosure systems for computer control centers. Evans Consoles has experience in supplying modular consoles to Air Traffic Control Towers as original equipment & as retrofits.

Major Clients

Supply of consoles to various industries: electrical utilities, oil, gas & chemicals, data processing, telecommunications, process control & airport towers.

Exports

Over 80% of Evans Consoles Sales are exported to the U.S.A.

Sales

\$3.2 million (1988)

Employees

45

Field Aviation West Ltd.

Calgary International Airport, P.O. Box 3186 Station 'B'
Calgary, Alberta. T2M 4L7
(403) 275-2111 TELEFAX: (403) 275-0366

Contact

D.E. Thomson, Executive Vice President
S.E. Wagstaff, Vice President & General Manager
C.C. Carruthers, Director, Technical Services
R.D. Devitt, Director, Sales

Description

250,000 square feet of modern enclosed hangar space provides accommodation for the following:

- A complete line of aircraft inspection, repair, overhaul and modification services is provided for civilian and military fixed wing aircraft and helicopters.
- Worldwide salvage and repair of crash damaged aircraft.
- Aircraft seat design and manufacture.
- Aircraft interior design and installation.
- Specialized aeronautical engineering, particularly in the area of outfitting aircraft for individual specialized purposes (aerial photo, remote sensing, water bombing, etc.)

Quality Standards

Canadian Ministry of Transport company approval 5-60; Canadian Department of National Defence recognition to NATO AQAP 1 standards (U.S. Military equivalent MIL-Q-9858A); Short Brothers PLC approval SB/QC/AC/226; Canadair approval as procurement source; Bell Helicopter Textron approval as procurement source.

Featured Equipment

Modern environmentally controlled paint facility capable of housing aircraft up to and including the Boeing 737; Complete line of airframe repair fixtures and tooling is maintained in support of salvage and repair of damaged aircraft.

Major Clients

deHavilland Aircraft Company of Canada - Division of Boeing Canada Limited; Short Brothers, Northern Ireland & Washington, D.C.; Construcciones Aeronauticas S.A. (Spain); Canadian Department of National Defence; United States Navy; United States Army; United States Department of Energy; Mexican Navy; Mexican Government Presidential Fleet; Major and Regional/Commuter Airlines, North America & Europe.

Exports World-wide market

Employees 250

Frontec Logistics Corp.

10035 - 105 Street
Edmonton, Alberta
T5J 2V6
(403) 420-7112 TELEFAX: (403) 420-7400

Contact

George N. Paicu, President
Ian D. Hargrave, Vice President, Market Development

Description

Frontec Logistics Corp. is a technical services company with expertise in operations of maintenance, facilities management, communications, logistics, and equipment maintenance and overhaul. Frontec Logistics is a company established through a joint venture between ATCO Ltd and Canadian Utilities Limited, to maintain the North Warning System.

Major Clients

Department of National Defence; Department of Transportation; Department of Defense (U.S.A.); United States Air Force

Sales

\$26 million

Employees

100

General Systems Research Inc.

12345 - 121 Street
Edmonton, Alberta
T5G 2Z4
(403) 451-9000 TELEFAX: (403) 451-1795
TELEX: 037-3073

Contact

Miles Palmer, CEO
Glen W. Lavold, Marketing Representative

Description

As a manufacturer of airframe components, General Systems Research has precision machine shop and sheet metal capabilities. It is conducting ongoing research activities into laser cutting systems. To increase it's aeronautical research and engineering capability General Systems Research is expanding its CAD/CAM Engineering Computer Systems.

Quality Standard

Conforms to NATO AQAP 4.

Featured Equipment

Hydro Press - 76" x 76" x 3"; Power Shear - 12'; Power Brake - 12'; Hydraulic Stretch-Wrap Forming; 25' bed - 3 head gantry milling machine; 10' bed CNC Mazak milling machine; 6.5' bed CNC Mazak milling machine; True trace milling machines - 25" x 12'; Anodizing tank - 22.6' x 6' x 2'.

Major Clients

Boeing Commercial Airplane; McDonnell Douglas; Northwest Industries; Field Aviation West Ltd.; Spar Aerospace; Raytheon Canada; All Fab Manufacturing; Government of Canada; General Motors Canada; Russell Corporation.

Exports

U.S.A.; Saudi Arabia

Sales

\$5 million

Employees

130

Global Thermoelectric Power Systems Ltd.

#400, 407 - 8th Avenue SW
Calgary, Alberta
T2P 1E5
(403) 264-4343 TELEFAX: (403) 262-5279
TELEX: 03-824680

Contact

W.G. (Bill) Lancaster, President
Barry L. Beattie, Sales & Marketing Manager

Description

Global Thermoelectric Power Systems main product line is thermoelectric generators, including a 110 watt portable generator weighing only 14 kilograms which can be used for tactical battery charging and powering radio repeaters, a thermoelectric engine heater/battery charger, and a series of generator systems (0.5 to 3.0 KW). In addition Global has a SCADA (Supervisory Control and Data Acquisition) Department which manufactures and markets RTU's and industrial trending equipment. Thermoelectric / solar hybrid systems are also one of 'Global's' common system types. Global is involved in a number of research and development projects with the Department of National Defence, the National Research Council, the Alberta Government and the U.S. Army.

Quality Standard

Conforms to AQAP 4

Major Clients

Firms or institutions whose requirements include, cathodic protection, navigation and offshore positioning, SCADA, telemetry and telecommunications.

Exports

To over 40 countries

Sales

\$4 million (1988)

Employees

50

GN Corporations Inc.

#6, 4312 Ogden Road, SE
Calgary, Alberta
T2G 4V3
(403) 290-1720 TELEFAX: (403) 265-2851
TELEX: 038-27573

Contact

George Plesa, President
Ambrose Chun, Marketing Representative

Description

GN Corporations is involved in precision machining, heat treating of metals and the manufacture of precision downhole oil tools & high pressure low-torque ball valves. Engineering design, prototype development and consulting services are available. GN Corporations is currently developing a microprocessor controlled photoinclinometer, a remote-controlled injector for radioactive substances, an electronic clock for downhole applications and new profile rotors for air pumps.

Quality Standard

Conforms to AQAP 4

Featured Equipment

3 OKK MVCC 500 CNC Milling Centre; 1 Mazak M-5 CNC Lathe; 3 Mori Seiki TL5 CNC Lathe; 1 Mazak Microturn CNC Lathe; 1 Cad-Cam System.

Major Clients

Otis Engineering Co. Ltd.; Newsco Well Service Ltd.; Matt's Manufacturing Ltd.; Pres-Air Distributors.

Exports

U.S.A.; India; China; Algeria and European Countries.

Sales

\$2 - 3 million

Employees

30

H & R Valve & Meter Ltd.

6211-50th Avenue
Bonnyville, Alberta
T9M 2L9
(403) 826-4355 TELEFAX: (403) 826-3153

Contact

Ron Belanger, President
Hille Newton, Quality Assurance Manager
D.S. Jakul, Marketing Representative

Description

H & R Valve & Meter tests & remanufactures safety relief valves, gate, globe, piston, check & ball valves, as well as, manufactures components for various types of valves. H & R has facilities for prototype design. Ongoing R & D to improve packing & sealing systems on various valves & hydraulic related equipment. Recent invention and subsequent patent of "Rod Guard," a corrosion reducing device to enhance the life of polished rod and lessen environmental damage.

Quality Standard

Conforms to CSA Can 3-Z.299.3-85; ANSI/ASME B31.1, B31.3; Alberta Boiler Br. Authorization #46

Featured Equipment

Pneumatic testing equipment to 3000 lbs; Hydrostatic Testing Equipment to 10,000 lbs; Lapping & Polishing Equipment; Caustic Tank; 28" Macson Engine Lathe.

Major Clients

AEC Oil & Gas Co.; Alberta Public Works; ESSO Resources Canada Ltd.; Flint Engineering Ltd.; ICG Resources Canada Ltd.; Maple Leaf Utilities Ltd.; Texaco Canada Resources; BP Resources Canada Ltd.; Weyerhaeuser Canada Ltd.

Employees

16

Hanson Materials Engineering

7450 - 18 St.
Edmonton, Alberta
T6P 1N8
(403) 440-2916 TELEFAX: (403) 440-4175

Contact

Gary D. Stuart, Chief Executive Officer
Sidney H. Hanson, President
Norman I. Hanson, Vice President Operations

Description

Hanson Materials Engineering provides a full range of Materials Engineering, nondestructive testing, quality assurance, heat treating services and the following facilities:

- Metallurgical laboratory for failure analysis, metallographic analysis & scanning electron microscopy.
- Testing laboratories for analysis of mechanical and chemical properties.
- Nondestructive testing capability in all techniques.
- Custom heat treatment facilities including case hardening, nitriding, pit furnaces and salt bath lines.
- Quality assurance services including vendor inspection and audits.

Hanson Materials is affiliated with Pyramet Industries Ltd.

Quality Standards

Department of National Defence certification for testing; API 6A; ASTM calibration; CGSB certification.

Featured Equipment

Full metallographic laboratories; Scanning electron microscopy; Mechanical testing including tensile, impact, microhardness; Chemical analysis by atomic absorption; Nondestructive testing including X-ray, ultrasonic, eddy current, acoustic emission, thermography; Full heat treatment capability.

Major Clients

Oil and Gas including Syncrude, Suncor, Petro Canada, Shell; Power Generation including B.C. Hydro, Alberta Power; Nuclear Power including Ontario Hydro, N.B. Power; Aerospace including Canadian Airlines International Ltd., Air Ontario, Field Aviation; Pulp and Paper including MacMillan Bloedel, Weyerhaeuser.

Employees

220

Harding Instruments Co. Ltd.

9431 - 41 Avenue
Edmonton, Alberta
T6E 5X7
(403) 462-7100 TELEFAX: (403) 450-8396

Contact

Pat Harding, President
Ian Wellman, VP - Marketing

Description

On an OEM basis, Harding Instruments and performs electronic design & manufactures, industrial instrumentation & data acquisition equipment, telephone peripheral equipment, security communication systems & medical instrumentation. It invests heavily in product development in the areas of data acquisition and control, telecommunications and instrumentation.

Quality Standards

Conforms to CSA Z299.3. Plans in place to meet AQAP4.

Featured Equipment

Complete engineering design & product development facilities; complete prototyping & manufacturing facilities.

Major Clients

Northern Telecom; ITT; Barton Instruments; ADT Pacificom.

Exports

U.S.A.

Employees

23

Hiltap Fittings Ltd.

107, 2750 - 22 Street, N.E.
Calgary, Alberta
T2E 7L9
(403) 250-2986 TELEFAX: (403) 291-3592
1-800-661-6150

Contact

Lee A. Krywitsky, President

Description

Hiltap is an experienced manufacturer of couplings that have application in the following industries: aerospace, cryogenic/vacuum, petrochemical, oil/gas & pulp/paper. The couplings offer metal to metal sealing, low torque installation, ultra low leak rates and operate at ultra low to ultra high temperatures. Ongoing efforts with metallurgical, pressure/temperature and cryogenic research & development. Hiltap Fittings will do subcontract machining & milling. CAD/CAM (Computer Aided Engineering) on new Hiltap coupling applications for leak prone areas in vacuum, cryogenic, high temperature/high pressure & petrochemical industries.

Quality Standards

Conforms to CSA Z299.3.

Featured Equipment

MAZAK CNC QUICK TURN 15 LATHE; MAZAK VHQC 15/4D CNC milling machine; FJ805 MITUTOYO Coordinate Measuring machine; surface roughness analyzer; LN₂ testing.

Major Clients

LTV Aircraft Products Group; Boeing; McDonnell Douglas; Dupont; Dow Chemical; ESSO; Shell; Linde/ Union Carbide; Ontario Hydro; ICI America.

Exports

U.S.A.; United Kingdom

Sales

\$700,000 (1988/1989)

Employees

10

IDACOM Electronics Ltd.

4211 - 95 Street
Edmonton, Alberta
T6E 5R6
(403) 462-4545 TELEFAX: (403) 462-4869

Contact

Walter Stein, President and CEO
Jeff Plato, Product Specialist

Description

IDACOM designs, manufactures and sells data communications testing equipment, specializing in high performance applications. The company provides network testing, custom testing and conformance testing solutions.

Research activity includes data communication, protocol standards, protocol testers & test methods, conformance testing & test methods. Current joint venture projects underway are:

- XCTS (an X series protocol conformance test system) with the Corporation for Open Systems International (COS).
- CCS #7 protocol tester and conformance test system with Alberta Government Telephones.
- MHS P1, P2, and RTS conformance test suites with University of British Columbia (UBC).
- PTE architecture, a system architecture for protocol testers, with UBC.
- SDP (Serial data processor) with UBC and Microtel Pacific Research.

Featured Equipment

IDACOM's PT300 is a portable, user-friendly, service and support tester, providing integrated ISDN/WAN testing. IDACOM's PT500 is a powerful combination BRA/PRA/WAN high performance development tool.

Major Clients

Major telephone companies, major long distance carriers, data communications equipment manufacturers.

Exports

USA, Japan, Europe, 90% of IDACOM's products are exported.

Employees

100 (world-wide).

Inspira Systems Ltd.

14728 - 116 Avenue
Edmonton, Alberta
T5M 3G1
(403) 451-2330 TELEFAX: (403) 451-2933

Contact

Paul Biermann, CEO
Brian D. McCready, Marketing Representative

Description

Inspira Systems is a well established facility in Edmonton experienced in combining plastics & metal technology & precision machining of steels, non-ferrous metals & plastics. It has expertise in formulating polyurethane to produce cast & machined polyurethane parts. Inspira is continuously involved in joint venture projects to develop new products. Research activity centres around new product design & prototyping.

Featured Equipment

Mori Seiki 5L 15H; Mori Seiki 5L 5H; Hitachi Seiki Vx 45; Mazak AJV 25/405.

Major Clients

BASF; ESSO Petroleum Canada; CNR; Proctor & Gamble.

Exports

USA

Sales

\$2 million +

Intera Technologies Ltd.

#2500, 101 - 6 Avenue, SW
Calgary, Alberta
T2P 3P4
(403) 266-0900 TELEFAX: (403) 265-0499

Contact

Brian Bullock, CEO
Mark Wride, V.P. Marketing

Description

Intera Technologies is experienced in the following areas: remote sensing from aircraft and satellite; data acquisition, data processing and data interpretation; atmospheric research; environmental planning; radar imagery; airborne geophysics; geological software. It's research activities involve computer interpretation systems, digital image processing and interpretation, and reconnaissance planning and service.

Featured Equipment

Synthetic Aperture Radar (STAR-Systems), Airborne meteorological sensor systems (AeroLab), Software for data Analysis (e.g. Sarsim).

Major Clients

Government organizations; World Development Associations; Major International Oil Companies; Major International Mining Companies; Major International Forestry Companies.

Exports

To over 60 countries.

Sales

\$44 million

Employees

200 (800 World-wide)

Inventronics Limited

3900 - 101 Street
Edmonton, Alberta
T6E 0A5
(403) 461-5010 TELEFAX: (403) 450-0234

Contact

Gary Thompson, President & CEO
Grant Shannon, Vice President, Marketing & Product Development

Description

Inventronics is a multi-industry company supplying products & services to the telecommunication, electronic & defence industries. It provides engineering design in addition to fabricating sheet metal products such as standard racks and accessories, termination cabinets and enclosures and environmentally sealed and controlled enclosures. Services provided by Inventronics include engineering design, precision sheet metal fabrication, aluminum fabrication & assembly, wiring & assembly, powder paint finishing, wet paint finishing, zinc plating, aluminum anodizing & aluminum chromating.

Quality Standards

Conforms to the following Quality Standards: AQAP4; AQAP6; MIL-I-45208A; MIL-W-6858D; MIL-W-1595A; MIL-W-8604A; MIL-W-6811A; MIL-C-5541C; MIL-A-8625B; MIL-E15090; MIL-F-14027C; MIL-M-13231 (ER); EIA STD; RS-310-C; ASTM-B633; TT-P-1757.

Featured Equipment

CNC Turret punch press; aluminum and steel spot welding; electrostatic powdercoat painting; zinc plating and anodizing; electronic assembly; press capacity up to 400 tons.

Major Clients

3M; Northern Telecom; NovAtel; AGT; Sask Tel; Raytheon; Litton; Microtel.

Exports

40% of total production volume is exported to U.S.A.

Sales

\$18 million (Edmonton Plant \$5 million)

Employees

250 (Edmonton Plant 60)

ITRES Research Limited

110, 6815 - 8th Street N.E.
Calgary, Alberta
T2E 7H7
(403) 274-7440 TELEFAX: (403) 295-3570

Contact

Dr. Clifford Anger, CEO
Mr. George Neely, Marketing

Description

ITRES Research is involved in the development and design of a compact Airborne Spectrographic Imager, a digital Charged Couple Device (CCD) Camera & a CCD Imager. Contract Research & Development in Electro-Optics is also performed. ITRES Research is doing continuous research into very low light level detection, low energy xray detection & ultra violet light imaging using CCD's.

Featured Equipment

CAD Systems

Major Clients

University of Arizona/USAF; National Research Council of Canada; Leigh Instruments Limited; Defence Research Establishment Suffield; Bristol Aerospace.

Exports

U.S.A.

Sales

\$750,000

Employees

16

Jade Simulations International Corporation

#80, 1833 Crowchild Trail NW
Calgary, Alberta
T2M 4S7
(403) 282-5711 TELEFAX: (403) 289-6876

Contact

Greg Kletke, VP, Corporate Development
Carmen Colbourne, Marketing Communications Manager

Description

Jade Simulations International is a leading supplier of high performance simulation software for parallel computers. A DND joint venture project is in progress. Ongoing research activity into distributed simulation and modelling, and object-oriented programming languages.

Quality Standards

In-house quality assurance program.

Featured Equipment

Sun Workstation Network; BBN Butterfly & Meiko multiprocessor machines.

Major Clients

Naval Research Laboratory, Washington, D.C.;
Department of National Defence, Valcartier; Teledyne Brown Engineering.

Exports

USA; UK

Employees

25

Lakewood Systems Ltd.

#200, 9258 34A Avenue
Edmonton, Alberta
T6N 5P4
(403) 462-9110 TELEX: 037-2966

Contact

Don Hlibka, President
Ken Smelquist, Vice President

Description

Lakewood Systems manufactures portable IBM-related low powered remote data logging equipment (i.e. paperless chart recorders), solid state data recorders used in the areas of environmental, laboratory and oceanic testing. It also manufactures military test systems and instrumentation devices for high and low speed data recording applications. Current joint development program in progress with Irvin Industries Aerospace Division (Ontario). Lakewood Systems is also involved in a technology transfer to the Pacific Rim and to the Canadian Military.

Quality Standard

In-house Quality Assurance Program.

Featured Equipment

Laboratory with pressure test systems and automated data recorders, heat testing and calibration facilities.

Exports

Pacific Rim.

Sales

\$500,000.

Employees

6

LSI Logic Corporation of Canada, Inc.

Petro Canada Centre,
Suite 3410, 150 - 6th Avenue S.W.
Calgary, Alberta
T2P 3Y7
(403) 262-9292 TELEFAX: (403) 262-9494

Contact

Perry Constantine, CEO
Brian Mackie, Vice President, Marketing

Description

LSI Logic's expertise is in application specific integrated circuits (ASICs), PC chip sets & RISC microprocessors (MIPS, SPARC, 1750A). In late 1988, two state-of-the-art production lines opened, one for ASIC manufacturing and the other for surface-mount and through-the-hole printed circuit board assembly. LSI Logic is conducting ongoing research into products for the telecommunications industry.

Quality Standards

Conforms to Mil Spec 883C & MIL-M-38510

Featured Equipment

Fully equipped Design Centres for customer use, 95 + CAD design work station.

Major Clients

Northern Telecom; Canadian Marconi; Hyundai

Exports

South Korea

Sales

\$40.9 million (1988)

Employees

150

Dr. D.J. Marsden

Professor of Mechanical Engineering
Dept. of Mechanical Engineering
University of Alberta
T6G 2G8
(403) 492-3705 TELEFAX: (403) 432-7219

Description

Dr. Marsden has over 30 years experience in aeronautical research with an emphasis on aerodynamics. He has developed several new wing sections with special characteristics for use on low speed aircraft, sailplanes, and horizontal axis windmills. He has participated in aircraft design projects including the complete design of two experimental variable geometry sailplanes and the design of a successful powered light aircraft manufactured in Alberta. Dr. Marsden has published more than 20 technical papers dealing with aerodynamics and aircraft design and was elected a fellow of the Canadian Aeronautics and Space Institute for his contributions to aeronautics in Canada.

Dr. Marsden's current research interests are:

- 1 Development of sailplane wing sections having low drag over an extended range of operating speeds.
- 2 Winglets for reduction of induced drag with application to powered aircraft as well as sailplanes.
- 3 Propeller aerodynamics and development of airfoil sections for propellers.

Featured Equipment

4' X 8' low speed wind tunnel; main frame computer.

Qualifications

B.Sc. (Alberta) (1955), Ph.D. (Toronto) (1965), P.Eng.

M.A. Steel Foundry Limited

4820 - 78 Ave. SE
Calgary, Alberta
T2C 2W9
(403) 236-1682 TELEFAX: (403) 236-0891

Contact

Michael T. Ang, CEO
Isidro T. Ang, Executive Vice President

Description

M.A. Steel Foundry is experienced in producing steel & stainless steel castings.

Quality Standards

Conforms to CSA CAN 3-Z299.3-1985

Featured Equipment

Spectrometer for chemical analysis; Electric Induction Melting Furnace; No-bake Molding System; Computer Controlled heat treat oven.

Major Clients

Oil & gas equipment manufacturers.

Exports

USA

Sales

\$2 million

Employees

20

Millway Industries Ltd.

1155B - 44th Avenue S E
Calgary, Alberta
T2G 4X4
(403) 287-2430 TELEFAX: (403) 243-8748

Contact

Al MacMillan, CEO and Marketing Representative
John Conway, Marketing Representative

Description

Millway Industries specialty is precision machining and custom manufacturing to its customers specifications.

Featured Equipment

CNC Lathes (2); NC Drill; Conventional lathes, mills, drills, etc...

Employees

7

Mining Resource Engineering Limited

(Western Operations)

143 - 3rd Street NW
Medicine Hat, Alberta
T1A 6K5
(403) 526-4714

Contact

David G. Harding

Description

Mining Resource Engineering is involved in explosives research and engineering for the military and private sector industrial groups. Areas of expertise are computer modelling and software development, explosives research and development, electronics research and development, and mining services.

Major Clients

Consulting, engineering and research services have been provided to firms throughout the world in the following industries:

- ammonium nitrate
- bulk terminals
- construction
- consulting
- mining
- manufacturing

Myrias Research Corporation

900 Park Plaza
10611 - 98 Avenue
Edmonton, Alberta
T5K 2P7
(403) 428-1616 TELEFAX: (403) 421-8979

Contact

F. T. White, CEO
Peter Gregory, Marketing Representative

Description

Myrias Research develops and manufactures large scale parallel processing computers. Myrias Research has developed the hardware and software for a unique programming environment called PAMS, the Parallel Application Management System. The PAMS provides the user with a system which is easily expandable, easy to program using industry standard languages, highly scalable and has a broad applicability. Myrias will build a 1024 processor system for the Alberta Government for use by other research establishments in Alberta.

Major Clients

Alberta Research Council; U.S. Department of Defense; Canadian Department of National Defence.

Exports

U.S.A.

Sales

\$10.8 million.

Employees

79

Northwest Industries Limited

P.O. Box 9864
Edmonton International Airport
Edmonton, Alberta.
T5J 2T2
(403) 890-6300 TELEFAX: (403) 890-7773

Contact

L.H. Prokop, President
F.A. Maybee, Vice President & General Manager

Description

Northwest Industries Limited (NWI) is one of Canada's principal aircraft maintenance and overhaul companies involved in the repair and overhaul of airframes and components, instruments, and hydraulic units. In addition, NWI manufactures and assembles air and fluid lines, electrical wire harnesses, insulation blankets and are also engaged in sheet metal fabrication. Services also include aluminum and steel heat treating, cadmium plating, anodizing and non-destructive testing. NWI's Technical Publications Department publishes Military and Commercial technical manuals and modification leaflets. This department has a full electronic publication system, modern print shop and an in-house French translation service. Northwest Industries Limited is involved in joint venture projects with the Canadian Division of Bombardier on the F18, T33 and the Tutor. A joint venture partnership is underway with Standard Aero for C130 QEC Overhauls.

Quality Standards

DND approved AQAP 1 program; MOT.

Featured Equipment

Temperature and humidity controlled paint shop. Complete one-stop service for aircraft repair, overhaul and modifications. Engineering services for advanced structures and avionics and a complete Technical Publications Service.

Major Clients

Canadian Armed Forces; U.S. Department of Defense and other governments in South America and the Pacific Rim.

Exports

U.S.A.; Bolivia; Mexico; Singapore; Algeria and Chile.

Sales

\$30 million

Employees

350

NovAtel Communications Ltd.

1020 - 64 Avenue N.E.
Calgary, Alberta
T2E 7V8
(403) 295-4500 TELEFAX: (403) 295-0230

Contact

Del Lippert, CEO
Grant Meadows, Marketing - Telephones
Gerry Hohn, Marketing - Systems

Description

NovAtel is an internationally known manufacturer of cellular mobile telephones & systems with a complete line of portable, mobile & transportable cellular telephones. NovAtel also has departments involved in RF System Engineering & Cellular Fixed Station Equipment design.

NovAtel's Chip on Board manufacturing techniques, including advanced robotics and computer integration, are used in the production of Printed Circuit Boards for cellular products. Current joint venture projects underway are Bridge & Span, a cellular data modem (Spectrum), & a voice activated car telephone (AT&T). The Research & Development facility in Calgary headquarters employs some 200 people in cellular systems and telephone development.

Featured Equipment

Chip on Board technology; advanced robotic component insertion and computer integration.

Major Clients

Carphone Cellular Group; General Cellular Corporation; Century Telephone; NorthwestTel; Warehouse Direct; Alberta Government Telephones.

Exports

Australia; Chile; China; Costa Rica; Mauritius; New Zealand; Thailand; U.K.; U.S. Exports accounted for 78% of 1988 Sales.

Sales

\$150 million (1988)

Employees

1000

Pelorus Navigation Systems Inc.

202, 575 Palmer Road NE
Calgary, Alberta
T2E 7G4
(403) 250-9377 TELEFAX: (403) 291-9123

Contact

Edward G. Fitzhenry, President
Donald Sinclair, Marketing Representative

Description

Pelorus Navigation Systems is experienced in the design, manufacture and installation of high-tech electronic navigation and meteorological systems such as a Runway Visual Range, Microwave Landing Systems and a Surface Condition Analyzer. Pelorus Navigation System also manufactures Distance Measuring Equipment and Automated Weather Observing Systems. Under a joint venture agreement with the Alberta Research Council, Pelorus is developing a Microwave Landing System Receiver.

Quality Standards

Conforms to AQAP 4, CSAZ299.2 & MIL-1-45208.

Featured Equipment

Electronic Test Equipment spectrum analyzer; oscilloscopes; power meter; frequency counter signal generators; microwave vector network analyzer.

Major Clients

Provincial and municipal governments who operate airports from coast to coast in Canada.

Exports

Ireland; West Germany; Sweden; Korea; Thailand.

Sales

\$3 million

Employees

25

Pyramet Industries Ltd.

7434 - 18 Street
Edmonton, Alberta
T6P 1N8
(403) 440-4253 TELEFAX: (403) 440-4175

Contact

Sidney H. Hanson, CEO
Jesse Chan, President

Description

An affiliate of Hanson Materials Engineering, Pyramet Industries is an investment caster of ferrous and non-ferrous materials. Research activity involves investigations into casting high strength aluminum alloys.

Quality Standards

Conforms to AQAP 4 & MIL-I-45208

Featured Equipment

Robotic Controlled Shell Room; Full In-house Metallurgical Test Facilities; Nondestructive Testing Facilities and Heat Treatment Facilities.

Major Clients

Hughes Aerospace; Boeing; McDonnell Douglas; Lockheed.

Exports

USA

Employees

10

Reliable Group

5311 - 86 Street
Edmonton, Alberta
T6E 5T8
(403) 468-6220 TELEFAX: (403) 468-5777

Contact

Ray Peets, CEO
Vasile Zamfirescu, Marketing Representative

Description

Reliable Group provides experienced precision machining, hard chrome plating & porous chrome plating services. In the fall of 1989, shot peening will be available.

Quality Standard

Conforms to AQAP 4

Featured Equipment

Precision grinding machine - 45" diameter X 23' long; Vertical internal honing machine - 15' X 22" bore; Lathes up to 22' long; Assorted milling machines, grinders; Electronic balancer.

Major Clients

D.S.S.; Esso Resources; C.P.R.; B.C. Ferries; Syncrude and Shell Oil.

Sales

\$6.3 million

Employees

100

Sherritt Gordon Limited

Specialty Metal Products

Fort Saskatchewan, Alberta

T8L 2P2

(403) 998-6625 TELEFAX: (403) 998-6568

TELEX: 037-2290

Contact

A.R. Latham, CEO

K.T. Horn, Marketing Representative

Description

Sherritt Gordon's Specialty Metal Products Division refines nickel & cobalt and manufactures specialty products including composite powders & dispersion strengthened nickel sheet for turbine engines, and magnetic & conductive materials. Continued research effort in areas of composite powders for turbine engines, wear resistant materials for the mining industry and conductive powders for the electronics industry. Also conducting process research in hydrometallurgy and product research.

Quality Standards

MIL-Q-9858A; GE P1TF35; P&W QA 6076 V; RR CQC 103.

Featured Equipment

Chemical & analytical laboratories; Metallographic examination & physical testing; Flame spray & plasma spray guns; Powder rolling equipment.

Major Clients

General Electric; Rolls-Royce; Pratt & Whitney; United Technologies; Air Canada; Lufthansa; Garrett; Perkin-Elmer.

Exports

Exports to 55 countries world-wide including USA, Japan and countries in the EEC.

Sales

\$2 million (Specialty Metal Product Division).

Employees

50 (Specialty Metal Products Division).

SMART Technologies Inc.

#5, 1205 Cameron Avenue S W

Calgary, Alberta

T2T OK8

(403) 244-8854 TELEFAX: (403) 244-8856

Contact

David Martin, CEO

Description

SMART Technologies is developing a large area, ultrafast liquid crystal flat panel display, a PC viewer for overhead projectors, and visual conferencing products.

Major Clients

Wang Canada; Heath Zenith; Department of National Defence.

Sales

\$1.2 million

Employees

3

Synerlogic Inc.

500 Sun Life Place
Edmonton, Alberta
T5J 3H1
(403) 423-9992 TELEFAX: (403) 423-9995

112 Kent St., Suite 902
Ottawa, Ontario
K1P 5P2
(613) 238-5213 TELEFAX: (613) 238-6340

Contact

David E. Seibel, Ottawa
Annie B. Wilson, Edmonton

Description

Synerlogic offers information systems consulting, design and development, facilities management and systems integration. Synerlogic is currently in the final stages of establishing an internal software engineering centre.

Quality Standard

US DOD 2167A.

Major Clients

Canadian Department of National Defence; Canadian Government Agencies; U.S. Defense contractors; private sector Canadian firms.

Exports

U.S.A., Great Britain.

Sales

\$20 million

Employees

300.

Tower Aerospace Products Inc.

4121 - 23B Street NE
Calgary, Alberta
T2E 7V9
(403) 291-2264 TELEFAX: (403) 250-8627

Contact

S.G. McLeod, President
J.A. McLeod, Vice President

Description

Tower Aerospace Products is a manufacturer of extended range fuel systems, McDonnell Douglas 500 helicopter crash position indicators (Air), & emergency position indicators (Marine).

Quality Standard

Transport Canada; FAA (USA).

Major Clients

Major Aerospace manufacturers of helicopters, and defence systems.

Exports

USA; Italy; New Zealand; Australia

Employees

5

Tower Aircraft Hardware Inc.

4121 - 23B Street NE
Calgary, Alberta
T2E 7V9
(403) 291-2264 TELEFAX: (403) 250-8627
TELEX: 03-821172

Contact

J. McLeod, Vice President

Description

Worldwide distribution of heavy jet transport aircraft parts and components.

Quality Standards

Operating authority through Transport Canada & the F.A.A. (Federal Aviation Authority U.S.A.).

Major Clients

Major Airlines; Overhaul Operations; Armed Forces.

Employees

20

Tycor International Inc.

6107 - 6th Street SE
Calgary, Alberta. T2H 1L9
(403) 259-3200 TELEFAX: (403) 253-0663
TELEX: 03-825842

Contact

Will Frey, CEO & President
Koos Van der werff, US Sales Manager
Scott Lee, Canadian Sales Manager

Description

Tycor combines ongoing research and development with field expertise in the manufacture of Power Conditioning Equipment, which includes AC Power Line Filters, Uninterruptible Power Filters, Regulating Line Filters, and Isolating Line Filters. Tycor Power Conditioning Equipment provides Computer Grade Power for microprocessor based equipment to ensure reliable and efficient performance. Tycor Products incorporate finely tuned circuitry which virtually removes all normal and common mode noise, EMI, RFI, protects against massive surges caused by lightning and switching power grids, and brownout and blackout conditions. Typical applications for Tycor Products include computers, CAD/CAM and robotics, point of sale terminals, programmable logic controllers, medical and military equipment. Tycor Products are available for plug-in or hardwire applications. Custom design and OEM products are available.

Quality Standards

Conforms to MIL - STD 220, 220A 461F. Withstands ANSI (IEEE) 61.41, 1980 Cat. A, B1, B2, Nato Supply Code 38426, U.S. Government GSA GS - 00F - 93501

Featured Equipment

Keytek Surge Generator for ANSI IEEE C62-4; Spectrum Analyser; Spike and Transient Generator with Stabiline Line Monitor; Shielded Room; Tracking Generator.

Major Clients

Raytheon (U.S. & Canada); Boeing; Lockheed; General Dynamics, Westinghouse.

Exports

Australia, New Zealand, Hong Kong, Singapore, Chile, U.S.

Sales \$3.7 million

Employees 42

Universal Power Corporation

#6, 1715 - 27 Avenue N E
Calgary, Alberta
T2E 7E1
(403) 250-3479 TELEFAX: (403) 250-6711

Contact

E. R. Gale, President
O. S. Juvkam-Wold, Vice President

Description

Universal Power manufactures an Inverter Control Module which is capable of providing voltage regulation, current control and frequency (50, 60, 400 and 480 Hz) from analog or digital signals, and Universal Power Regenerators (UPR) which are a line of power management and protection devices including true uninterruptible power systems. On-going development into military inverters and power supplies.

Major Clients

Magnetek ALS; Digitronics; Various Municipalities; Oil Companies; Utilities; etc...

Exports

U.S.A.; India.

Sales

\$1 million

Employees

14

Universe Machine Corporation

5546 - 89 Street
Edmonton, Alberta
T6E 5P9
(403) 468-5211 TELEFAX: (403) 468-5430

Contact

Kurt Feigel, Sr., CEO
Don P. Gavins, Marketing Representative

Description

Universe Machine is a manufacturer specializing in conventional & CNC machinery work for large diameter valve servicing. Heat treatment capabilities are available for large items.

Quality Standards

Meets the requirements of CSA Z299.3

Featured Equipment

Valve test equipment; weld & positioning equipment.

Major Clients

Valgro Limited; Telford Oilfield Products Ltd.

Exports

USA

Employees

62

Versatech Industries Ltd.

#104, 3750 - 19 Street N.E.
Calgary, Alberta
T2E 6V2
(403) 250-8000 TELEFAX: (403) 291-5408

Contact

W.A. (Bill) Meyer, President
M.F. Meyer, Secretary Treasurer
A.C. (Andy) Baylis, Plant Manager

Description

Versatech Industries is an experienced machine shop offering services requiring lathes, milling machines, drilling machines, machining centres & CAD-CAM. It is a manufacturer of down-hole precision oil tools.

Quality Standards

In-house Quality Assurance Program

Featured Equipment

OKK-630 CNC vertical machining centre 4 axis with Fanuc 11M control; Mori-Seiki SL5-CNC turning centre with Fanuc 6T control; Mori-Seiki SL2-11-CNC turning centre with 11T-A control; Takasawa BHN-6 CNC turning centre with Fanuc 6T control; five engine lathes; three milling machines; radial arm drilling machine; honing machine; CAD-CAM system (Autocad).

Major Clients

Alberta Energy Company Ltd.; Shell Canada Limited; Lynes United Services Ltd. (Baker Co.); Drill-Rite Industries Ltd. (Computalog Co.); Canterra Engineering Ltd.; Positive Action Tools Ltd.; NL McCullough Inc.; Norcen Energy Resources.

Sales

\$1-3 million

Employees

12-20

Volk Precision Industries Ltd.

4611 - 6A Street N.E.
Calgary, Alberta
T2E 4B4
(403) 230-3115 TELEFAX: (403) 277-1417

Contact

Jay Scott, President
Harry Lane, Manager - Contracts
Ed Stamler, Manager - Special Projects
Frank Hall, Manager - Marketing

Description

Volk Precision Industries has expertise in CNC precision machining & fabrication.

Quality Standards

Conforms to MIL-I-45208, DND 1016 & AQAP4. Welding qualifications for pressure vessels ASME Section 8, Div. II, Copper Nickel - ASME; and aluminum, stainless steel & carbon steel in accordance with MIL-STD 1595A and MIL-W8604A Class B.

Featured Equipment

7 CNC lathes; 3 vertical machining centres; CNC machine tool tape preparation software for CNC programming, editing, plotting, punching and program storage; AutoCAD software and CAD/CAM programming; dBase III Plus DataBase Management software.

Major Clients

Oerlikon Missile Systems (Switzerland); Oerlikon Aerospace; Raytheon Canada; Raytheon Missile Systems (US); Pratt and Whitney; Bristol Aerospace; Envirovac Canada; Defense Construction Supply Centre (US); NovAtel Communications; Rosemount Instruments.

Exports

U.S.A.; Switzerland; U.K.

Sales

\$4 million

Employees

50

Wemas Industries Ltd.

636 - 36th Avenue N.E.
Calgary, Alberta
T2E 2L7
(403) 276-4451 TELEFAX: (403) 277-0725

Contact

Horace Bauer (CET), CEO

Description

Wemas Industries is a custom metal fabricator specializing in tools & dies, punching, forming, blanking, welding & assembly.

Quality Standards

In house program; CSA Z299.4 pending.

Featured Equipment

1-DWC 200 H EDM Wire Cutting System; 1-Xerna X 12 EDM Machine; 1-CMM Coordinate Measuring Machine.

Major Clients

T.I.W. Systems USA; Siemens Electric; NovAtel Communications; Oerlikon.

Exports

USA; Switzerland

Sales

\$3.6 to 4.5 million

Employees

45

Western Aerospace Technology Ltd.

#170, 393 Palmer Road NE
Calgary, Alberta
T2E 7G4
(403) 291-3323 TELEFAX: (403) 291-2832

Contact

Everett Bunnell, President

Description

Western Aerospace Technology Ltd. is a newly created company involved in aircraft repair, overhaul and modification and the reconditioning of CF-5 and F-5 components. The defence division is centered in Edmonton and a heavy transport maintenance facility is under development in Calgary.

Wesure Weld

Division of Western Sulfur Resmelters Ltd.

#10, 7139 - 40 St. SE
Calgary, Alberta
T2C 2H7
(403) 279-2440 TELEFAX: (403) 279-6851

Contact

Rick Ellithorpe, CEO
Brendan Woolnough, Marketing Representative

Description

Wesure Weld has expertise in robotic welding, component part manufacturing & C.N.C. machining. Wesure provides to its customers, engineering, design, drafting (CAD), product proto-typing & development services.

Quality Standard

Conforms to AQAP-9 and CSA Z299.3

Featured Equipment

7 Axis robotic welding cell; Monarch VMC 75 machining centre; PAC 10 plasma cutter; Turning, sawing, punching, shearing equipment.

Major Clients

Evans Consoles; Twister Pipe; Mirage Antenna

Exports

U.S.A.

Sales

\$600,000

Employees

6

Willowglen Systems Ltd.

Willowglen Business Park
Manning Close N.E.
Calgary, Alberta
T2E 7N5
(403) 272-1800 TELEFAX: (403) 272-2114
TELEX: 03825630(Willowglen CGY)

Contact

J. Malcolm Milne, Vice President

Description

Willowglen Systems has expertise in the design manufacture & service of computer remote control monitoring equipment, telemetering equipment & remote control for telecommunication equipment. Willowglen's "RTU's" provides remote monitoring & control of Satellite Communication Earth Station for the ANIK C14 GHZ satellite. SCADACOM™ Software Development joint venture project underway with the University of Calgary. On-going research into areas of Real-Time Software Platform, High Resolution Graphics, Operator Interface, Fault Tolerant Network, Real-Time Work Station & Wide Area Network.

Quality Standards

Conforms to MIL- Q-9858A, Quality Program Systems; Calibration systems comply with MIL-STD-45662 and DND 1019. Statistical Quality Control sampling is in accordance with MIL-STD-105.

Featured Equipment

Digital Electronic and Microcomputer printed circuit board and mechanical assembly; Minicomputer and Microcomputer programming facilities (DEC and Motorola).

Major Clients

Raytheon & Government of Singapore (electrical, gas, water, housing); Southern California Metropolitan Water District; City of Calgary; Maritime Electric; Lavalin International.

Exports

USA; UK; Singapore; India

Sales

\$20-30 million

Employees

120

Zard Aerospace

Research & Development Ltd.

1007P 55 Avenue NE
Calgary, Alberta
T2E 6W1
(403) 274-7066 TELEFAX: (403) 275-5623

Contact

Brian Hval, PENG - President

Description

Zard Aerospace conducts studies, and researches and develops products incorporating lighter-than-air flight technology.

Activities include airship design, remote control vehicles, inflatable structures, lightweight structures, materials testing, aerodynamics, and transportation economics.

Featured Equipment

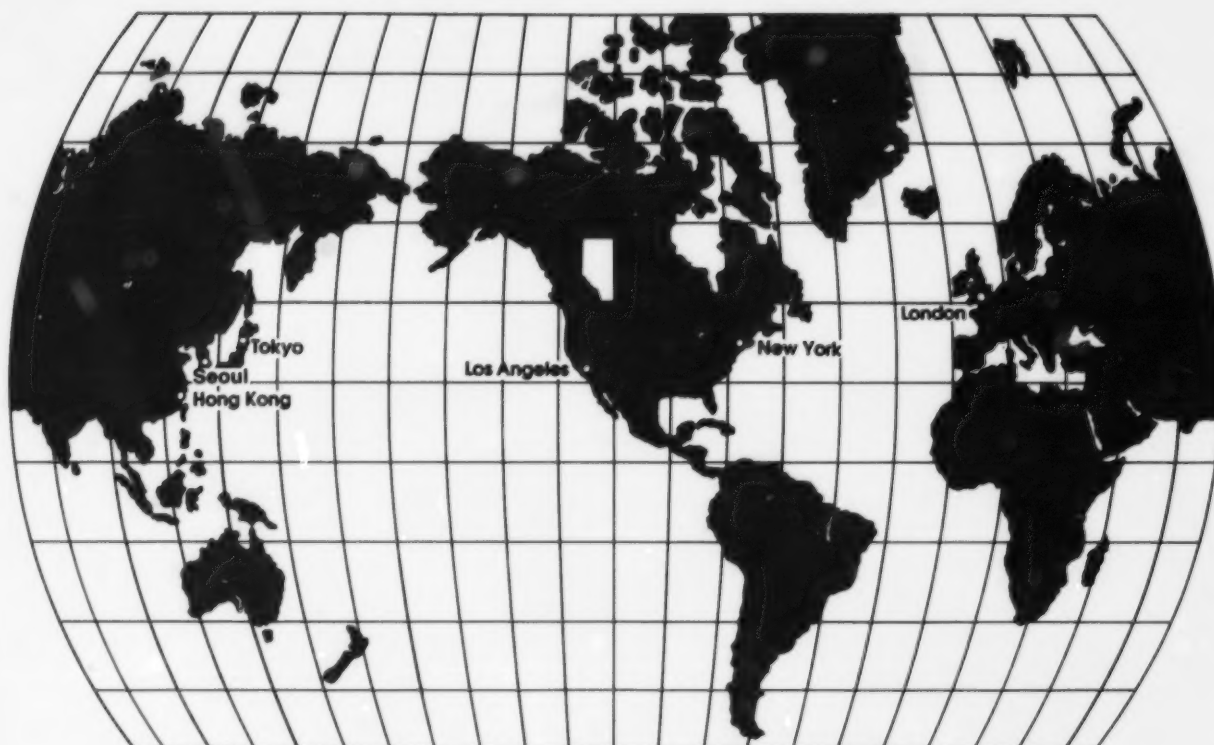
CAD and airship design software; textile and materials testers; high sensitivity leak detectors; wind tunnel; structural test jigs.

Major Clients

Various government departments & private sector companies.

Employees

6



INTERNATIONAL REPRESENTATIVES

The Government of Alberta maintains offices in strategic locations around the world, in addition to the head office in Edmonton and branches throughout the province. Our international representatives can provide all the information required to initiate commercial or technological exchanges. They can also introduce potential investors to the unlimited opportunities available in Canada's Province of Opportunity. Feel free to use their services.

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Edmonton, Alberta
Canada T5K 2P6
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Commissioner General for Trade and Tourism
#1800, Royal Trust Tower
Edmonton Centre
Edmonton, Alberta
Canada T5J 2Z2
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Facsimile: (403) 422-9340
Telex: 037-43185

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Rooms 1003-4, Admiralty Centre
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Hong Kong
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Telex: 802-61961

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146-1 Soosong-Dong
Chongro-Ku, Seoul 110-140
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Telex: 801-29-132
Telefax: (011) 82-2-733-1028

Alberta House - Tokyo
17th Floor
New Aoyama Building (West)
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Minato-Ku, Tokyo 107
Japan
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Facsimile: 011-81-3-470-3939
Telex: 72-28543+

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27th Floor
General Motors Building
767 Fifth Avenue
New York, New York 10153
U.S.A.
Telephone: (212) 759-2222
Facsimile: (212) 759-3682

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1 Mount Street
London, England
W1Y 5AA
Telephone: 011-441-491-3430
Facsimile: 011-441-629-2296
Telex: 51-23461+